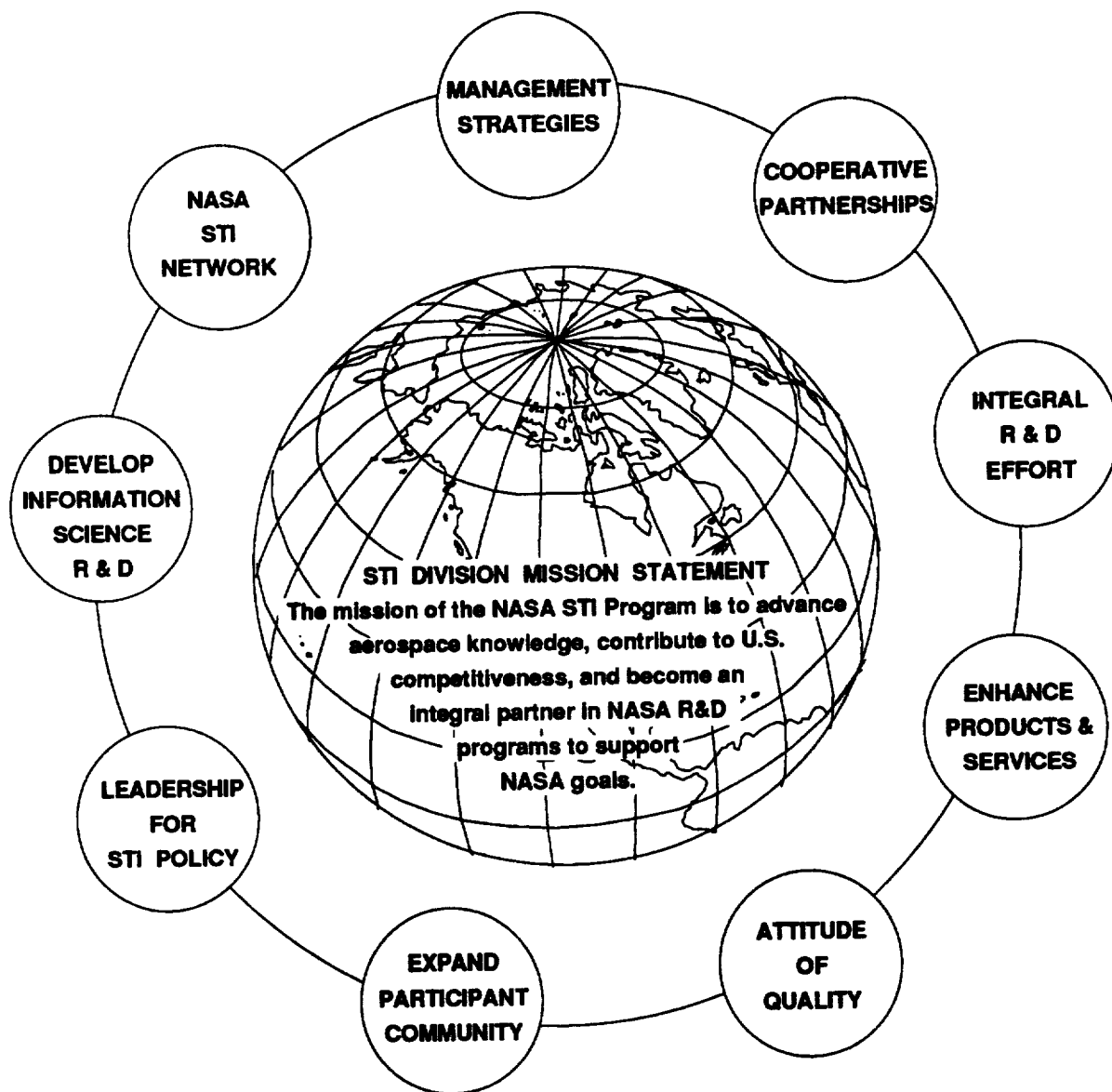


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NASA STI PROGRAM \_\_\_\_\_ DATE OVERDUE  
**COORDINATING COUNCIL**  
Third Meeting \_\_\_\_\_ NOVEMBER 29, 1990

**STI STRATEGIC PLANS**



# **NASA STI PROGRAM**

**Coordinating Council  
Third Meeting  
November 29, 1990**

## **AGENDA**



# **NASA STI PROGRAM COORDINATING COUNCIL**

## **Third Meeting**

**Thursday, November 29, 1990**

10:00 - 10:15	Introduction	Gladys Cotter
10:15 - 12:15	STI Strategic Plan	Barbara Everidge
12:15 - 1:15	Lunch	
1:15 - 2:45	Discussion	All
2:45 - 3:00	Topic for next meeting	All



**NASA STI PROGRAM**

**Coordinating Council  
Third Meeting  
November 29, 1990**

**MODIFIED TRANSCRIPT OF PRESENTATION  
AND INTERACTIVE DISCUSSION**





**NASA STI PROGRAM COORDINATING COUNCIL**  
**Third Meeting**  
**November 29, 1990**

**ATTENDEES:**

NASA- G. Cotter, B. Everidge, J. Wilson, K. Voglewede, J. Hunter, W. Keene, R. Tuey, R. Ridgeway, P. Sullivan  
RMS - C. Eberline, J. Gignac, J. Tolzman, G. M. Van Ty Smith, D. Marincola, C. Bajis, K. Simon, L. Wassell  
AIAA - I. Bogulubsky, B. Lawrence, P. Marshall  
CDC - A. Normyle, K. Kaye, C. Generous, A. Kuhn  
LMI - D. Duncan

**MODIFIED TRANSCRIPT OF PRESENTATION AND INTERACTIVE DISCUSSION**

**Introduction - Ms. Gladys Cotter, NASA**

Ms. Cotter explained to the group that the information for the STI Strategic Plan was gathered through several brainstorming sessions and that she would like to have a group brainstorming session at this meeting to see what ideas could be included in the outline that had been put together. At Ms. Cotter's suggestion, all of the members listed above introduced themselves in turn to the group. Ms. Cotter introduced Ms. Barbara Everidge who then presided over an interactive discussion on strategic planning.

**STI STRATEGIC PLAN - Ms. Barbara Everidge, NASA**

Has everyone gotten a copy of the handouts? This is not going to be a formal presentation. This is going to be a discussion. What I want to talk about today are the strategic goals that we've come up with and some plans for action.

When Gladys came on board, Code NTT was kind of in a holding pattern. The first thing the new management needed to do was to look at what was going on within the program, to define a mission and a group of strategic goals, to establish a cohesive program, and to move forward. We met with IBM, as a facilitator, in a number of sessions. We have one more session scheduled in December 1990 to finish this, and to integrate a lot of the ideas and actions that we've talked about in the last three sessions. What I'm going to present this morning is a summary of what we've done so far. I'm leaving out a lot of the details, some of which IBM still has to process and return to us. As we go along, if you have ideas or questions speak up right away.

When we started out to put together a strategic plan, the first thing we did was to take a look at NASA's goals (See p. A-2). These are goals from NASA's long range plan as articulated by the NASA Administrator in December of 1986 before Admiral Truly came on board. When we have a better feel for Admiral Truly's mission and vision for the Agency, some of these goals might change, but I think this gives us a good idea of the direction the Agency's going to take. The plan for the STI Program needs to be in concert with the Administrator's plan and vision. NASA's goal is to be at the forefront of advancements in the aerospace industry, and at the STI Division you'll see that we've incorporated that goal into the kinds of things we're planning. We want to be a leader in STI throughout the aerospace community, not just for the agency but nationally and internationally. NASA's goal is to set a course into the twenty-first century and that's what we're trying to do too with our modernization efforts. NASA, in addition to the aerospace mission, has a mission to planet Earth. We're taking a look at what that entails and how we might have to adjust the scope of our products and services, and the information we're collecting to meet both the aerospace mission and the mission to planet Earth. It is particularly important to the STI Program to strengthen aeronautics research and development (R&D) technology. Later on I'll show you our chart about how STI is both the raw material and the end product for R&D.

This is the remainder of the NASA goals statement (p. A-3). The first goal is to return the space shuttle to flight status. The next is to develop facilities to pursue the science and technology needed for the Nation's space program. That goal we've incorporated almost whole cloth. When we look at the facilities that the STI Program is involved with and when we look at what we can do in the way of STI R&D, we feel we can make a contribution to the theory, the philosophy, and the procedures and practices of STI, by some of the development we can do.

Keeping NASA goals in mind, I'd like you to think about the way we phrased our mission statement (p. A-4) and what you might suggest adding to it. Our primary mission in the division is to advance aerospace knowledge. We want to increase U.S. competitiveness and we want to become an integral partner with the R&D program. We have had a great deal of discussion about where STI as a program belonged. Part of that had to do with funding; the type of funding, and the levels of funding. We feel that we work hand in hand with the R&D community, and that our main users are the scientists, the engineers, and the managers of R&D activities. We are looking at increasing the number of links and increasing the services that we provide to this community. When we put together our strategic plan, we had a discussion about how far ahead we wanted to think, and we've all agreed that we wanted to think ahead to the next ten or fifteen years but that our strategic plan would address the next five years. Some of the things that we've thought about encompassed the long-term "big picture," for example resolutions within the United Nations. Those kinds of things got scaled back a bit when we talked about having a five-year strategic plan and concentrating on what we could accomplish in five years.

The focus of our effort will be development of a global program. We'll talk about that and what we are doing in the way of building the network. We want to encourage the creation of STI and we are not necessarily creating it by gathering data, but we are helping the creation of STI by encouraging authors to analyze data, to get their research results written down, to get them into a database - either a bibliographic database, a numeric database, or image databases - whatever we can do to encourage this information being institutionalized. The information needs to get into that kind of format, so that we can process it quickly and disseminate it. We added the creation phrase in the mission statement. Exchange of STI has always been part of our mission and we want to facilitate its use by building networks and tools that will help move this information around. We want to provide leadership in advancing information research and in integrating state-of-the art information technology into our services. We have several roles in this area. One is to participate in committees, both within NASA and outside NASA, nationally and internationally, so that we can have an input into what kinds of activities these groups address. The other is to work on our own NASA STI R&D program.

DENISE DUNCAN. Comments I've heard from more than one researcher at each site indicate that it is recognized in the field that STI is poorly funded. They feel that it would be appropriate for STI to be at least partially funded by R&D funds.

BARBARA EVERIDGE. I'm glad to hear that's been validated by the field because we have felt the same way. One of the problems that we've run into is that the R&D sectors in various centers have funds they are willing to use to help underwrite some STI activities, but the administrative transfer of funds from the researchers to STI programs is very difficult. BARBARA EVERIDGE. One of the things that we have talked about is getting our own line item in the R&D budget in the long term. I don't know if this is particularly articulated in the plan because this plan has been pared back to five years.

Are there any other comments or suggestions about the mission statement? Do you feel that this is a fairly good statement of what we as a group have set forth as a mission?

BARBARA LAWRENCE. We need to see more of what goes behind it. This means a lot to you because it took you many hours getting there. I think the rest of us need to see into it.

BARBARA EVERIDGE. Then I will move onto a summary of the strategic goals that we came up with out of our three sessions, in order of importance and in the order that we should tackle them (p. A-6). Those at the bottom are things that we'd like to do. Should we develop a program for information science R&D? I believe I mentioned earlier that this goal might be put on hold because there are so many other important issues that need to be addressed now and that's one reason it won't affect management strategies. We took a look at what was going on in the program, and all the reporting that we had to do. Reporting to upper management in NTT continues to be a problem.

We thought that some of the best things we could do was to define effective management strategies so we could implement them to get the budget support and the personnel we need and so forth. One of the severest problems that's hampering the STI Program now is that there are so few government employees here to manage such a large program. As we go through and take a look at all these goals you'll see that each of the action plans we made calls for someone to develop a concept, to think it through, and to monitor the activity. For example, why can't we have the contractors interact with the centers and build liaisons with various program codes. It's a huge task, and we're still sitting here with eight people in the division. We have a lot of wonderful contractor support, but there are certain things that are not being done because the government needs to initiate the action and we are backlogged. We'll be going through each of these strategic goals in more detail in a minute so I'll just let you look through them.

We discussed what our most important service approach would be, and that was the STI network. NASA has most of the telecommunications networks hardware and software already in place and available for this network. We have to put them all together and build the product from the pieces that are available, and develop some value adding tools. We think we can make a lot of headway in deployment of the STI network that goes hand in hand with the next goal which is to seek out and develop cooperative partnerships.

Because we're under-resourced for the job that we need to do within NASA, one way that we can move ahead and get some needed products and services added to our menu of existing services is to go out and find out what the other agencies are doing. In the 1960s NASA was in the forefront of the STI agencies; now we're playing catch-up but there's a lot that DOE and DOD have done that we can use if we set up these cooperative arrangements. We can also help our funding situation by developing cooperative arrangements, gathering funds, and finding commonalities among STI groups. That's going to be extremely important to the accomplishment of the STI mission.

I've already talked about establishing the STI as an integral part of R&D. The most important thing there is to begin to develop those ties with the researchers in the field, at the centers, and in the program offices. When we think of long term, we want to have an STI contact in the program codes to work with them, to find out what they need, and to feed them information. Conversely, the STI contact would gather what the programs are doing to make sure it gets into a database so that we can distribute the information or at least maintain a record.

We have two strategic goals dealing with quality. Establishing this council, with the opportunity to meet together and exchange views on how things can be done, is a step in the right direction. We all need to know what the various parts of the program are doing. We want to expand the existing participant community, not just the number of people with useful products and services. And of course we want to reach the leadership in the R&D program.

Now, I'll talk about each of the strategic goals in detail. When we get our report from IBM, we'll have names and milestones associated with each of these items on the action plan. But this is very flexible and very fuzzy right now. When we come together at the next planning session, we're going to be integrating all the actions. We have a user requirements study going on and when we get that study finished, that will give us the answers to a number of these strategic goals; there's a lot of integration that needs to be done. As we go through, if you see other objectives, if you think objectives are out of line, or you can suggest other ideas for actions that would lead toward that goal, please let us know.

The first goal, implement effective management strategies (p. A-7), will be completed when we have a STI Program staff of 50. We have 12 now (8 professional). KAREN SIMON. How realistic is that goal? BARBARA EVERIDGE. To answer your question, 12 to 50 in five years is extremely optimistic. The number of positions that are available through Headquarters are limited. There are a number of ways that we can look into gathering additional personnel; there were positions in the division in previous years that were eliminated. We've charted the decline in staff in the STI Division over the past ten or twenty years. We were high at one point, I think it was 60, and it has continued to fall to our current level. One thing we can do is make the argument that we need a robust program. GLADYS COTTER. I think, too, one of the things that's going to be critical is the type of legislation that is passed with our budget. Will Congress specify that Headquarters is over-staffed and over-funded? If so, it will be much harder to build up the program. KAREN SIMON. I asked the question because it seems to me that how many people you have on the staff affects your management. GLADYS COTTER. Exactly. If you have fewer people, then you're spread more thinly and there'll be major portions of this program, as we'll lay it out, that we're not going to be able to address. For example, one of the things that the centers want is a center liaison, and they would like that person to be a former employee from one of the centers. We need to get a slot to establish the position so we can bring someone in from one of the centers. There was the program for bringing people to Headquarters from centers for training, but depending on how Congress words the budget package we may not be able to do that. ROLAND RIDGEWAY. Congress is trying to close some of the loopholes that NASA had been using. The detailing program was being used by Headquarters to rotate people to centers, to Headquarters, and back to the centers, but what happens a lot of the time is that people want to stay here at Headquarters. That's why they closed that hole up. Once you understand the situation now, you start seeing what our options are, we need to start dealing with people from different codes and getting the codes to support our requirement of getting additional people as part of their R&D effort. It's not going to be an easy job. I think it would be realistic to hire maybe 25 or 27 people in five years if we get R&D folks to support our effort and if we've got the centers already asking for it. It's not going to be an easy job, but there are a couple of different approaches to trying to get these positions established for the STI effort. BARBARA EVERIDGE. The next one is to have an STI budget for fifteen million. JOHN WILSON. A way to get something for both the first two goals, as Roland mentioned, is to get Headquarters R&D people. If we don't have somebody to put over there, then at least we could assign somebody over there whose duty it is, as a part of their responsibility, to serve as liaison to

the STI Division, and also to get them to fund projects of ours, at least partially. Then the money wouldn't be in our pot, but, like AERONET, to the extent we could get them to put money into it, we could at least move forward. ROLAND RIDGEWAY. They haven't (as far as we know) decided who's going to take the hits for the Headquarters slots. If nobody's fighting for your position, then you're going to be the one that gets cut. That's why the program office, even though it's not their money, they are screaming about the support they need for their programs from your area. Then Headquarters offers a response. If nobody's screaming, including your own higher-up management, then you're the one who gets cut. That's how it happens. So you have to start finding out now who's going to support you and who's going to help you scream, 'cause everybody's going to get cut and the ones who aren't perceived as an important part of the NASA goals and objectives, including at the Headquarters level, will get cut the worst. GLADYS COTTER. Last year we were cut the worst, and it was as a result of users screaming that we got some of the money restored. One of the things that Dr. Robins has on his desk now for review is a charter for an STI advisory group. It is modeled on the AIM council: it would have members from the program codes and two scientists or leading scientists from the centers assigned to it; they would meet at least twice a year and go over the STI agenda. I think that Dr. Robins hopes to have the advisory group provide a voice saying "Hey, we need this." The key will be to get the right people. BARBARA LAWRENCE. One thing you talked about when we had the first of these meetings was having a rotating center representative. It strikes me that this is a good way for word to get back through the centers into that management structure. GLADYS COTTER. That's a good point. At our video conference next week, we'll look for a volunteer for this. BARBARA EVERIDGE. The advisory council, once it's established, can help in that area also. BARBARA LAWRENCE. If the directors of the codes have to develop a plan and you're a step ahead and have something recent and finished as they're starting their process, do you have a comfortable way of sharing your plan with them and saying, "This is what we've put together and does it suit your needs? How can we build a connection with what we're doing, what you're doing, and integrate into your plan?" This is the sort of thing, you said yourself, that somebody who is forward-thinking needs to do as well as getting them to say I don't understand what this is about or it doesn't support my program, it doesn't support my needs, or there's a piece in here that really addresses me and I'll see that that gets in my plan. GLADYS COTTER. If we have the advisory council, this would be a good issue to address. The other way of doing it of course is by sending it out to people and then making a follow-up appointment just to chat for 15 or 30 minutes.

BARBARA EVERIDGE. Our final objective under this particular goal is restructured, renegotiated contracts. The contracts we currently have in place and the ones we pick up for development must be well defined but flexible enough that as the program changes we can have our contractors respond to that change in direction. We need to work on establishing strategy for the contract restructuring. What do we need to do, first of all, what kinds of end state do we need, what kind of contractual vehicles do we need in place and reachable, how do we go about getting that. Identify opportunities within NASA. Part of this is going on now with the work that Denise Duncan is doing with our user requirements.

DENISE DUNCAN. Since we got back about a week ago, we spent a week at Dryden, Ames, and Lewis Research Centers and spoke to the STI managers and librarians and then to selected researchers and authors to look at the STI process from cradle to grave: the generation of STI within NASA, the utilization of STI, as well as both the input and the product. The researchers are very well aware of practical constraints, they are very well aware of budgetary constraints, and they frequently stated their goals as the ideal. For example, if you can't give me text and graphics, give me text with captions, if you can't give me NACA reports with the curves clearly represented then make it easier for me to obtain the original. They were always stating this is my ideal but I'll settle for this. So they're aware of the budgetary constraint issues. In terms of global impressions, they are extremely satisfied with the library service and how the libraries network among themselves. It appears that networking seems to have kept them progressing very well despite some budgetary constraints. It helped them to focus on their efforts and satisfy users of STI. I think that that idea of networking at the center level is working quite well for the librarians. The users are very appreciative of the library services. They are aware that they can go to a library and they can get assistance, that there is RECON and that there are other things and that somebody at Headquarters cares about them. That's our current level of visibility. But they don't understand how it all fits together. You know, as far as they know, I guess STI is a library. There are plenty of opportunities in terms of internal holdings, and amazing consistency (now this is just two of the centers) on the need to access the old NACA reports. At Goddard and Langley we went into initial pre-visit strategy. There is strong consistency between Dryden and Ames regarding the way users like to search, regarding some of their opinions about our current internal database, and on what their wish list entails. The aeronautical engineers said if you can't give us curves I'll take the numeric data. So in terms of opportunities you have a user base out there that's really willing to cooperate. Don't forget, I was only asking people about online access to STI.

GLADYS COTTER. But I think if we could start with just that very near segment and do something for them that's doable now, then we can build up a success history and then go back and worry about the next thing later on. I think that's a good approach. Just take your one area and try to implement something that will make their life better. JUDY HUNTER. A lot of small successes actually make the road smoother when you want to go out and do some sort of major agency-wide development work. JOHN WILSON. If you got Langley, Lewis, and Ames interested in AERONET, then the AERONET Data Locator becomes important. GLADYS COTTER. We also have Karen Kaye who recently got to see the aerospace database on CD-ROM. KAREN KAYE. That's a nice novice interface that I think can be used by someone intuitively who really hasn't searched DIALOG before, and of course it's interesting. If you haven't looked at it yet please drop by and take a look. You might want to check that out too because that's something that's available now that wasn't before.

BARBARA LAWRENCE. In January there will be the connection of a menu system which hasn't quite got the power of the CD-ROM. It's on a mainframe but it incorporates the same information flow based on how we understand the aerospace engineers will be asking

for information. They do ask for authors fairly often, they don't ask for patents very often, and the order in which they approach the questions is consistent. What Denise has found seems to be fairly consistent with what we hear from our membership. DENISE DUNCAN. I was just telling Judy you could do the easy way to search on author, title, journal, and publication using the wild card approach. BARBARA LAWRENCE. In the CD-ROM we built a special menu option that says conference papers. It happens to search behind the scenes in all the places you have to go to find that but we know that that's a question that people in this business ask. I think the centers may be feeling a sense of disappointment that the [STI Management] conference wasn't held when it was scheduled because that was an opportunity to come face to face with everybody and get a sense of what you're really interested in and have an opportunity for dialogue. BARBARA EVERIDGE. I don't know if you are all aware that we are having a video conference next Tuesday, the 4th of December. It is a poor substitute for the STI conference that was not held. This had been postponed because that conference was originally scheduled, and Admiral Truly had a space station preliminary design review, and we got bounced out of the video conference room in some of the centers, so now we're down to several hours instead of three days at Marshall. It'll be a very short meeting but enough so that we can touch base with the STI managers and librarians in the field. We won't have time to discuss this planning process in detail but at least we can mention that there is a strategic planning process going on and perhaps begin to build at least an awareness of that so that when the time comes we can send out a product or a draft to them and to get their input back. Back to this particular agenda.

This is the goal we considered most important for the modernization within the program (p. A-8): the rapid deployment of the STI network. Our objectives here in the end state will judge whether or not this has occurred. The R&D community will have access to the required R&D, to the required resources, and there will be a set of new value adding tools available within the network as a whole. The approach here is to find out what's available on the databases, what's available on the LAN gateway platform, and where we stand here. What we attempted to do for the action plan is to start by defining our user community because that's been a question. Adelaide Del Frate has been looking at the National Research and Education Network (NREN) to see if we can see something there to support a gateway here within the program. For user support, our marketing effort is an attempt to get the users to define what they want to see in the global STI network. And of course essentially to step through the procedure of establishing the network through evaluation. To find out what value adding tools are available, we can look at what DOE and DOD have done in the past. The gateway was developed by the DOD Defense Gateway Information System. Much of that work was co-funded by NASA so now it's an opportunity for us to go back and take a look at that software to see what parts of it we want to incorporate into a NASA gateway, what part we would want to redefine as it better orients itself to the aerospace community, and go from there. We need to establish formal agreements with resource owners so we can get that exchange of information and exchange of software and so forth. We have projects going on now with Ames, we want to evaluate their usefulness, then pick what we want to develop training packages, market packages, and so forth. There's some work done already on building the directory of the STI resources and John is going



to talk a little bit about AERONET in this context. We want to develop a charge-back method for these services. There was one thing we had some difficulty addressing within DOD in setting up the gateway. It is tricky to find a way that we could cost out, not necessarily the cost of the databases that the users will go to through the gateway, that's fairly well defined, but should NASA underwrite the gateway per se, should we try to amortize that across the division and end user. That's something DOD is still wrangling about regarding DGIS. We need to find out what's missing from the bits and pieces that we can gather up from what the DOD folks have done, and start our own development program to fill in the gaps. JUDY HUNTER. Most of our efforts to this point in time have been defining what the networks are at NASA, figuring out who we need to talk to to get connected to this network, and what types of services are available to those networks. We're looking right now at actually getting links to specific networks actually in development, and defining a hardware platform. The other point, too, is that the network is modular; you can begin with a foundation and kind of build on it. You won't have a fully functional gateway in six months or a year but you might have a beginning point, something that you can at least take out and demonstrate (if it weren't for procurement funds). BARBARA LAWRENCE. I think that's the most interesting thing about what Denise said; in other words, you can start, these are R&D folks and you don't have to wait until you get to the final vision, start with some tools and you grow them and involve them. That's what they do in their own work anyway so they understand that process and they'd probably rather it be that way because then they get to influence what the final thing looks like. DENISE DUNCAN. They also are very aware of a whole directory of resources. This translates into not only communications gateways, and STI gateways, but also providing directories to all kinds of resources; equations, and tools, post processors. GLADYS COTTER. I think one of the most interesting things politically for us, that might allow us to proceed with the directory at issue, is that there's a lot of talk about a Federal data locator system. We're talking about directories within different communities of NASA. What this means is that you're discovering information that people wouldn't want to know about unless they were really in with the peer level group. DENISE DUNCAN. Unless you're into data reduction and want these transformations, you don't know they exist on the system yet, and that's an interesting new tool. BARBARA LAWRENCE. It interests me that you've got the directory fairly low down along that action plan. BARBARA EVERIDGE. Some of this is kind of an arbitrary order, but most of these were pulled off the chart that IBM put together, by ending dates. Even though a lot of these efforts will begin up here, we figured we could get the definition of the user community done fairly soon, but a comprehensive STI resource directory falls further along because as we go through some of these things in the beginning we'll find out what they need. JUDY HUNTER. Actually the directory efforts have already begun. Karen Kaye is already looking at that issue, so it's already started. GLADYS COTTER. Even before we have the gateway per se built and up on the network, we've already taken some steps to, for instance, increase computer access to ARIN and to RECON. We have done a pilot test since then. Roland has found some even niftier and better ways to get end users into the ARIN and RECON systems. We started with a pilot test at Goddard and now we have Goddard and Kennedy interested.

ROLAND RIDGEWAY. Goddard's using SPAN and Johnson's using NASAnet. The people at Johnson, some of their individuals couldn't get into NASAnet or utilize it through the centers so they're thinking about using SPAN also. A lot of centers are using PSCN - that's always been there - and the libraries' own networks. Goddard has a direct line to the Facility but they also have PSCN set up to test the features of the software being used for the library systems. If that works, we can try to get them to transfer over to PSCN for all of their library communication needs. BARBARA EVERIDGE. So even though that's a limited network right now with only ARIN and RECON for these folks, it gives them a taste of what will be available. Eventually as we go to the directory and the links for the other data systems, it's going to be easy for these people to participate in the pilot test to make use of the other databases. Of course then we have our education marketing documentation training program to address, so we've included those items in our action plan too.

All the good discussion you had during the lunch period you want to get down on paper this afternoon. I covered two of the nine strategic goals that were the output of our series of planning sessions. In the interests of time, what I'd like to do is move to the action plan and just cover the objective of each goal very rapidly so we can spend time discussing what you see as high points in the action plan and what you might suggest we add to it. I know during lunch I've already gotten a couple of suggestions of things that needed to be added to the goals, so what I'd like to do is minimize the amount of time going through the words and maximize our time for discussion on each action.

Because of the problems we discussed this morning with our resource levels and because we don't want to replot the same ground, seeking out and developing cooperative partnerships (p. A-9) is particularly important to the STI program so of course the objective here is to have partnership agreements in place to find groups of people that have the same kind of interest in developing either a tool or database for another portion of the STI program, to bring these folks together, and to manage a joint effort. We talked this morning about joint strategic planning efforts with programming offices and we have added to our goals to seek out and develop cooperative relationships. We understand that we need to make them a part of their planning exercise, they need to take a look at our plans and give us their input so that we can direct it to that end. We're also looking here for stable recurring incoming funds because we have such a budget problem every year. We have targeted 35% of the budget as coming from outside sources because of these cooperative arrangements. This doesn't mean necessarily just reimbursable expenses for products sold but income from joint efforts and those kinds of things. We want to be so good at what we're doing that the partners are going to be seeking us out, saying okay NASA, we understand that you're doing some marvelous things in network development. We can share our expertise and input. I've broken the action plan down into two groups, this page and the next, because they really go into two areas: one, the operational partnerships to get the day-to-day job done (p. A-9); the other, our developmental or project partnerships where a group of agencies come together for a specific end (p. A-10). So under operational partnerships, the way that we can develop cooperative relationships with other groups in NASA and outside NASA, first of all is to define the requirements of the STI community

and produce a study as the first step in this direction. We would propose and initiate projects for the program office. We want to find out exactly what kind of information they're looking for, what kinds of programs, projects, products, and services we can develop for them and get them to buy into it. It increases serviceability, increases our incoming funding, and we're more tuned in to the types of things they need from us. We want to identify current STI work groups and committees. We have a number of people now serving on various STI committees and participating in CENDI and so forth. This is an area where we can use inputs to the kinds of groups that we need to look at and pay attention to and get some suggestions and jot them down too. What kinds of groups should we participate in, what kinds of groups can we set up? We want to establish membership for the current STI groups; we also want to set up our own groups. We want to reinstitute the NASA RECON users group. We need to get groups of people outside of the STI program to come together, give us some guidance, and buy into the projects that we're working on. Likewise, this way we can better understand their requirements. This plan is already beginning to show its age. We at first put some of these things together as early as last May and one of the things we want to establish is a two-way exchange of personnel. Right now the environment within NASA does not lend itself to this end so we're going to have to come up with alternatives for building that bridge between the folks here at Headquarters and folks at the centers. If we can't do this two-way exchange of personnel, we'll have to get creative and find out how we can accomplish that goal with some other actions. We talked about the program advisory board and that's in the offing. The other half of developing cooperative partnerships is the project approach. Much of this is based on the model some have used at DoD. When you have a very active STI program and people come to you to find out what you're doing, you begin to find that there are groups in different agencies and different activities within your own agency that have the same requirement, but they might not be aware that there are others that share that requirement. When you become a clearinghouse for this kind of information or this kind of development activity, then it's up to us at the clearinghouse point to begin to match up these folks and get them talking to each other and talking to us. So what we want to do is to identify long-range projects that need addressing and to begin to match up the partners that might participate in these developmental programs. To propose a program, develop a marketing plan to advertise it to those activities who might have an interest in the program. To sell the program in particular to the participants that we have targeted that need this particular service or product. And of course to offer new enticing products and services. This is particularly important in the resource environment that we have now, to facilitate a transfer of funds. Our one experience with transferring funds into another agency with NASA was a learning experience. We managed to get the money in and then at the end of the year there was another problem saying well, just because you earned it, doesn't mean you can spend it. We are working with the NASA finance department to streamline this process, so that we can bring money in, turn it into NASA-earned reimbursable funds, and then spend it through this program. We're still working on that issue. We need to make the procedure of transferring funds and spending those funds very simple. We found in other experiences that if the path is difficult, then organizations give up and take their business elsewhere. And when we work with our partners, we want to make sure that we deliver a quality product to them and then use the successes that we've

had in the past to leverage new partnerships, of course with an emphasis on quality results. We have some partnerships already under way with Ames and Lewis, and some of the things Judy's been doing with other groups.

In order to help us best in meeting the needs of our user community, we consider that it is integral to the success of the program to align ourselves with the R&D effort (p. A-11). An objective is getting STI as a line item with the R&D budget so that our funding would be assured and so that the R&D community would know that we're there as a support clearance for them, so that we're recognized part of the R&D effort, and should be aligned with the researchers. That's where we belong. We're a tool to them that's extremely important. We need to get the idea across to them that they cannot do their job as successfully without us being there to help. We also see an objective of a 50% increase in staff and a 15% increase in budget. This aligns with the figures we talked about in the management strategies. As we go through you'll see that some of the same kinds of actions are required to meet a lot of these goals. When we put together this final IBM planning conference and do some integration some of these things will have a single action. So here we go back to assessing our requirements, to finding our user community to find out what they need from us to regear the STI program to meet those requirements, and we're going in that direction.

Carl had a suggestion that we include specifically within our goals increasing our visibility. When we were doing our planning we talked a lot about that, that the STI program is invisible or is seen as a library program. Libraries is a bad word within Headquarters. One of the ways that we were addressing that image problem is to include things like this in several of these goals. I think it's well stated that we make improving our image as a specific goal, a specific objective in a number of goals, this is one way that we can do it. We need to participate in professional societies. We've presented a number of papers at meetings this year. We have to continue to do that, we need to get ourselves in position where these organizations, these conferences are seeking out our expertise and asking for these things. We need to participate in professional expos and I understand that RMS participated in the TU sponsored Technology 2000. CARL EBERLINE. It was our TU Section. In the first day, they had over 2000 visitors at the booth. I don't know what the second day was. I didn't get a chance to talk to them about it. It was very well received. BARBARA EVERIDGE. This is the kind of thing we can do to get ourselves out within the aerospace community or the industrial community in general, and to target specific professional organizations, conferences, and expos and set up an exhibit not just of the Facility perhaps but of the STI program in general. We can show not only what we can offer from the Headquarters, but also what there is to offer from the centers. CARL EBERLINE. One of the things that we've talked about is the possibility of using the TU booth. We know it goes out several times a year. If we could add something from STI to put into that booth, we could make double use out of it, we could have a joint effort. GLADYS COTTER. I think we should definitely do that because that's a smart use of our money. JOSEPH GIGNAC. I think they have five scheduled shows this year. BARBARA LAWRENCE. The only thing we have when we exhibit at AIAA meetings or information meetings is STAR and if you have other

things you want us to put there we would be happy to do so. BARBARA EVERIDGE. Well, we can use this vehicle to show that we're a means of access to a whole range of information systems and services. We do have printed products available but that's not the be-all and end-all of the program. GLADYS COTTER. When we were talking about, for example, Judy's meeting with people, we find ourselves in the interesting position where we're trying to develop a strategic plan but at the same time there's a lot going on. In the future, when we initiate a project we'll document it and it will always go back to a goal in our strategic plan so there's continuity with our top level plan and an action that is related back to it.

BARBARA EVERIDGE. One of the things I want to look at in establishing STI within the R&D effort is to understand how STI operations at the centers are part of the R&D effort and how we can support the effort by working directly with the end users through the STI groups and through libraries there. We want to ensure that the senior R&D managers are included in all STI meetings so that they know what we have to offer. I think the STI advisory council is a step in this direction. This also includes going out at the center level and making sure that the senior managers are included in the activities at the centers. We can use this strategic plan itself and get that out to the centers and say this is what we have going, this is how we want to support you, let us know what you think. We want to support the program codes and of course that hinges on the availability of staff, which takes us back to the first objective. We need to stabilize our budget and we need to increase our staff in order to do this. This objective is going to take some kind of creativity to see how we can make that happen in this environment where we don't have the staff. BARBARA LAWRENCE. The reverse of seeing R&D managers in STI meetings is you going to the R&D planning meetings. Even if you're not invited on the program at the beginning, just being there is important. In one of the models of the library that I've been looking at, this person started off by just showing up at the meeting. Uninvited. Just walk in the door. Crash the meeting. Before long the information resources are part of the planning process for any new project. In other words, they want to know what building space they're going to need for this program, they want to know what wind tunnel resources, they want to know information resources and she just went in there and took part. I don't know if that exact approach works everywhere but you need to not only invite them in but to be part of what's going on so that as a support resource, if you're going to be integrated, then you can do it. At Rand Corporation, I know they do projects that way. When they're going to bid on some contracts, they call everybody from the janitors to the information people to any kind of support services and they say what are the resources we're going to need to do this job. GLADYS COTTER. That's kind of the idea behind trying to infiltrate the FCCSET (Federal Coordinating Council on Science, Engineering, and Technology) committees, too, so that we get right in there in their environment and start trying to get our information plugged into their thinking.

BARBARA EVERIDGE. Quality is very hard to define, but we know when we haven't got it because we hear from our customers. Our goal is to enhance the products and services to the end users with emphasis on the customer (p. A-12). Find out who the customer is,

what they want, how we can meet those needs. We came up with some objectives in which the end state would be: how we would know that we've achieved a quality product. That's how customer satisfaction feedback moved into in place, we were hearing regularly from those people who use our services and we were getting positive responses in that feedback. We'll know we have achieved this when we have developed new or expanded products and services to meet the requirements as the users have defined them. We need to go out and find out exactly what it is and tailor product development to that direction. We have effective user groups in place and we have a proactive user services group. This goes back to liaison between the Headquarters elements and library elements and users that they serve. When we started on the action plan we knew that the first thing we had to do was get a user requirements profile. What did the users need. Something we could update so that as time goes by, as we begin to fill some of these needs, we can continue moving forward and deliver more and more sophisticated products and services. I can throw this open to the floor. What other kinds of ways can we make a proactive effort to enhance the quality of focus on the customer? ALLAN KUHN. I'd like to suggest that since the whole point of this element is satisfying the customer that is basically what you have there. It's what turns into a whole multitude of means of satisfying the customer through their description of what they need. I think one very important element in all of this satisfying the customer is recognizing that the crux of the whole thing is listening in order to satisfy the customer. JUDY HUNTER. And responding to the customer in a timely manner. BARBARA EVERIDGE. We were discussing during lunch, that our initial visits early last spring to some of the sites, was the first time that codes from Headquarters had come out. I did a series of visits in association with the ARIN functional review. Other folks have gone out and interviewed them and so forth. We have a very small staff. We told them the kinds of things that we want to do, the kinds of initiatives we're starting. Now that same very small staff has got to come through with its promises. As Denise says, the end user is hoping that this kind of attitude will last and we can deliver on some of these. We're a little overextended now considering the small staff that we have so I think we're going to need a continuing public relations initiative to tell them we're continuing to work on it, we're making a little bit of progress, we're having some small successes, please be patient and give us a little bit more time until we have the resources we need. DENISE DUNCAN. One thing that's really good here is that the users are aware that we're under constraints but they need to participate in the prioritization and reprioritization. Constraints change. JUDY HUNTER. That's a good point. BARBARA EVERIDGE. That's great because you have been talking about that with RECON development. DENISE DUNCAN. So we need not only a flexible profile that we can keep updated so we can understand their requirements but a flexible response mechanism to accommodate their priorities change. JUDY HUNTER. On the other side of that is we're sitting here like one person and we're getting feedback from many so we're in a position where we have to set up priorities. I think we should let them know what happened to their request. Okay, we can't act on it now because..., but it's in the bin and we have addressed the issue and we have looked at it and tried to see when we might be able to do it. We can at least give them some sort of feedback about whatever happened to the request that they brought into us, and I think we're not doing that now. Even if we say, yes, we got your feedback and we're looking at the issue. We need to make them

understand that we're looking at it for all centers, not just one center. Then trying to filter everything, looking for common areas of interest in the centers and things like that where you can expend your resources so that it affects a larger portion of the population. DENISE DUNCAN. That's also the clearinghouse function. When they come in with a requirement, and you already have a couple of responses with similar requirements that you cannot possibly address, the least you can do is say, we can't address this at this time; however, your colleagues at x and y are also interested. If nothing else you give them the benefit of a clearinghouse function. JUDY HUNTER. That's a good idea too. BARBARA LAWRENCE. I like that. Simple things. The equivalent of thank you notes, whatever. JUDY HUNTER. Right. At least acknowledge their request. BARBARA LAWRENCE. Put the information in a newsletter that say we got this information from all of you, we'll share it with you, acknowledge that you've heard from them, that they've spent time with you, that they've reacted to your draft plans, whatever it is. JUDY HUNTER. How many times have you sent a letter to someplace that was asking for information. You never hear anything. ALLAN KUHN. I think the uppermost thing to keep in mind is that the customer is paramount. DENISE DUNCAN. Involvement must be at a level that will encourage users to help establish the change in priorities. JOHN WILSON. But you also have to go with some concrete results. Particularly if you come up with proposals of things they need which they haven't thought about. DENISE DUNCAN. That's the idea behind the prototype system. You tell us you want this, you've got an approximation of what we think will satisfy you, so you can present it as a conceptual design and they can go with that, then you can put a prototype out and come back with concrete answers to the specific STI group. In general, the services you provide for users are to be able to handle requests for new services and discontinuance of old services that are no longer needed. When they send this in to a central point, it's their priorities that should help set the tone. It's just a matter of helping them know that you're listening to them and you perceive yourselves as providing service to them.

BARBARA EVERIDGE. I think that leads into the next goal which is building an attitude of quality throughout the enterprise (p. A-13). When we discussed setting this up, we saw that this is kind of an attitude throughout all these goals, the specific strategic goal, the set of objectives and end states and actions. Keep the quality in line with the customer in mind in everything you do from handling phone calls that come into the division to producing the network and getting the service to the end user. These are some of the things that we're looking at to improve information flow as part of that exercise so we can understand the program better internally so that we can present our program to our end users and other agencies. We want to build confidence in our work, we want to of course have timely handling of the request, a high level of quality for the employee, the end user, and contractor satisfaction. In other words, we're all part of the same team whether we're government employee or contractor employee or user of our services. We want to make sure that they're brought into the same end goals and working together in this. That was one of the reasons we put an active awards system as an objective in order to increase quality. We need to proactively recognize people who have made major contributions to the program so they understand we recognize what they've done. These are some of the actions that we

have. Take a look at the incoming hotline, incoming calls, how were they handled, did we produce a timely response; have user surveys. We talked about sending something out with products. Even though there is a low return, if you get anything back at all that gives you kind of a clue about whether they think its useful. We could incorporate quality questions in the other kinds of surveys that we're doing. Total quality management, a peer award program, particularly for NASA-wide authors. We had kicked around the idea of producing an awards program that would recognize authors that had made an extra step in order to get their results down on paper, get it into the system, and get it published. And to award, from the STI program point of view, the development, the creation, the quality of STI. Again I have the series of meetings to go to with interaction and external presentations. We're now, within the division, holding lengthy staff meetings. You have these kinds of meetings that are less often than monthly, but to have a series of get-togethers on different subjects, we could pass the information around so they know what we're doing collectively as a group.

We talked about expanding the existing participant community (p. A-14). The objectives are the end states: first of all, to increase R&D management. That goes back to getting involved and making ourselves integral to the R&D effort. Then we had some specific quantifiable goals like a 10% per year increase in the number of new users and an increased number of delivered information units. We didn't know how to express exactly what it was that we were delivering to our end users because we can't think in terms of documents or microfiche anymore. That's the way we currently count but as we move forward particularly into the network that's not a reasonable way of dealing with it so you might need to think of citation or image or page or something like that so we just called them information units for the time being and defining what that is and how we can quantify the amount of good stuff that we push out to the users because that's one thing that we'll have to do within reaching the strategic goal. So we didn't want to just expand the user community itself. We wanted to make sure that those users were using our services, that we're delivering more and more services to them as they're required and not just throwing information at them, that we're zeroing in on what they need and meeting that. And we said that one of the end states that we wanted here was to have competition among the centers to host an STI meeting, that having the STI group meet at that center will be important to the center, to the upper management of the center. So that again it's that they're seeking us out. Some of the things under the action item begin with the entire user community, developing a marketing program. This is a kind of more detailed level then some of the other actions we had over there but as we were talking with folks, in particular with the ARIN function review interviews, often there's a perception that the systems aren't working very well, you know, ARIN doesn't work, RECON doesn't work, when what it is is a communications problem. Although this is perhaps not the right level of detail in this plan we wanted to make sure that this was noted, there should be communications folks at the Facility that know their counterparts at every link along the way. On the networks you go through a number of different nodes and anyplace along that net something can break down. We need to get a personal network of communications experts so that when Ames is sitting out there saying, ARIN doesn't work, and it's because the communications are down, there's a way to



troubleshoot that path. What we're doing is we're taking a hit for something else entirely outside our control. That's why this is more for reminder purposes. It will probably be deleted from our final strategic plan as an inappropriate level of detail. BARBARA LAWRENCE. But that's something that's come out of the work that the southern California online users community has done which is that the user sees the system and the database as one thing. I know when I started some of those discussions I said you have to separate the quality issues from most of those things and they said no way. JUDY HUNTER. One of our functions is to make all that transparent. We're going to make that transparent to the user though we have to take on that responsibility. BARBARA EVERIDGE. But since that doesn't fall within our particular purview, we need to have the links with the people whose responsibility it is. If ARIN doesn't work or RECON's a failure because somebody knocked the cord out of the outlet, it doesn't matter, it's the system that gets the hit. But there's a way that we can address that. In fact, when the ARIN Report came out, there were a number of recommendations, one of which was if you continue to have a centralized database, you've got to look at the communications issues. We had pointed this out to the contractors who did the study but it's kind of left outside of our scope, it was like it doesn't make any difference, you're going to have to get in touch with people who can be responsible for it so it doesn't matter. The STI Bulletin has been redesigned recently and the contents are different and this is a wonderful tool to use as a marketing tool to send this out and expand dissemination of STI. We need to analyze the LMI study results to understand user product and service requirements. We've thought about installing an electronic bulletin board, that's a good way to get information, up-to-date information readily available and this would help, we talked earlier about getting a newsletter or memo out to the field to get a feel for what was going on. This is another way of having information available to the field and to end users. I'm sure that STI is included in NASA publications and congressional testimony. BARBARA EVERIDGE. Under this action plan there's one more thing that we want to do without any more resources. We had held a couple of user conferences some time ago but it's been a long time since there's been a NASA and a RECON users conference so we would like to start that cycle up again and work toward an annual NASA users conference.

For the last two strategic goals that we talked about we haven't developed the action plans yet, so if you have any ideas about the kinds of things we could do to accomplish these goals, jot them down and we will discuss them at the next planning meeting. We want to assert a leadership goal for STI policy (p. A-15). The lack of visible policy has been discussed lately and we feel that as the STI group, we can go a long way toward presenting NASA's views and presenting the STI philosophy. Our objectives are to have NASA STI represented on national and international planning and standards groups, to give papers to policy groups, and to be represented on cabinet level STI policy groups. We can get involved with OSTP activities until NASA is a recognized leader in STI. Now, how we go about doing that, we haven't quite figured out yet, but that's one thing that we can work on. Give us some ideas as to concrete actions we could take toward those ends. BARBARA LAWRENCE. On the professional organization level you have someone on the NFAIS information policy committee who has not been able to attend meetings. GLADYS

COTTER. Barbara Everidge has an action on that to nominate herself to it. BARBARA LAWRENCE. That's an opportunity to get well informed and to play a leadership role. Also I think they're looking for a new chair for the standards committee. That will roll over in February. And that's very important especially because Lois Granek is going to do a workshop related to standards required for databases so they can be on networks and all that stuff and with all the network issues, standards become very important.

BARBARA EVERIDGE. The last one (p. A-16) is a little bit farther-reaching than some of the other goals and we have the concern here that our resource levels won't allow this kind of development. Perhaps this can become a byproduct of some of the end-user-oriented development that we plan. We'd like to develop a whole program for information science R&D through the STI program and have a center where we do developmental work, and compile and do pilot and prototype studies. We'd like to begin to publish our own information about how we handle STI and what we've learned through dealing with the environment that we're in and building the networks and products and services that we've done so that we become our own source of expertise about STI. Some of the objectives for program information science R&D is to have one RTOP per year and to have NTT papers published in journals; to have patents. These are kind of optimistic, but we can tell that we've reached that point where we're contributing to the science as well as meeting requirements of our end users when the R&D application staff becomes 50% of the entire staff. In other words, we have as many people doing R&D and outreach as we have in the day-to-day operations. The same thing holds for budget. When the R&D application budget is 50% of the entire budget, for every dollar spent on operations, we have one that slips through for modernization, expansion of the network, R&D in and of itself. The last item here is to have a true STI R&D center where this kind of activity can go on, not just as a basis for the products that we're providing our user community, and have internships where university students can come and work in this environment, in the STI environment, to learn more about STI and we can get their contribution to us and they can learn a world of experience. So again, we have some objectives here but we don't have any specific action to define these yet. DENISE DUNCAN. There are couple of ways you can at least slowly integrate it into that community. I think this is a very good thing. You'll get respect from the scientists when you do this because you will be regarding yourselves as professionals applying the same methods they apply so they'll be able to communicate with you. DIAN MARINCOLA. One thing we need to do is to target the library schools and offer access to RECON and ARIN, whatever, and let them have free access over a certain period of time, let them introduce the system into their online retrieval program. JUDY HUNTER. I wouldn't just target the libraries though. DIAN MARINCOLA. Not only the library schools. The schools of information studies that teach the courses. Also they're the people who are doing research on bibliometrics all the other things we're interested in. Let them use the database, make tapes available for them to do bibliometric analyses. We talked about giving that kind of information out because it'll have a trickle down effect where they'll start writing about the system, maybe paying at a grant level, but they'll do all the other work for you. I made some contacts with people who are friends of mine at the university and they were very interested in it. Especially if you could give free access to the universities, we give

them free access anyway, so, sure we'll give you free access. But it's a nice way to get some good publicity and get it down to the people who will go out into the engineering environments and actually say I learned how to use RECON. It's a really valuable system. I know about the STI program. You've already got it done. JOSEPH GIGNAC. There are some inroads along those lines with the University of Southern Florida. They developed a RECON curriculum. JOHN WILSON. Southern University and University of SW Louisiana have developed a whole RECON curriculum. DIAN MARINCOLA. But very few people can use it. JOSEPH GIGNAC. But there's some inroads started along the line you're talking about. BARBARA LAWRENCE. Yes, but even in the library course on STI resources, it's not always high on the list, they're going to talk about NTIS or something else instead. JUDY HUNTER. But why I said not just library schools was because I think if someone is an engineer or working towards being a researcher in some discipline then make it part of their curriculum too as a way to go out to get information, current information, old information, in order to fit it back into their research. I think you need to target more than just library schools. DIAN MARINCOLA. The library schools have cooperative agreements now with most of the computing schools so that's a good point for them to make those exchange agreements and we can support them. DENISE DUNCAN. There's already a program for the engineering students in a couple of the universities, but I can't remember their names. I found out that while at Lewis students were using RECON and accessing and doing retrievals as part of their curriculum. BARBARA LAWRENCE. A couple of people at Ohio State put some information into the curriculum for aeronautical engineering programs, and in the design engineering course but very few...Kansas does it. A few people do it. We send them brochures sometimes and give them information but they don't want another course on information in the engineering curriculum, which they feel is tight already with the constantly expanding technology, and so you have to find ways to integrate the information into the whatever the courses are. And any tools that you provide that help the professors do that, for example, can be very valuable, if you make it easy for them. There are some brochures, old-fashioned pathfinders. JOHN WILSON. Along the R&D area too, one thing you can do is put grant money not in library schools but in the communications schools or in the EE schools to really do something on gateways or whatnot where you really tie into the research area. It probably doesn't take that much money. DIAN MARINCOLA. There are the schools of public administration. Letting people who log into government service know where their kinds of information are. The law schools. DENISE DUNCAN. I had a discussion with some division scientists last year, about a cabinet level science and technology information policy regarding the U.S. Government IRM. Basically the U.S. Government invests so much in R&D, and the management information is open to R&D as a resource. Basically, the reading I got from NSF was there is no policy-making entity and the closest that you come is an advisory board who performs the coordinating function between NASA and NOAA. GLADYS COTTER. But that now is the STI Board, they changed the name about six months ago. One of the things we've been doing through CENDI was trying to get OSTP to establish a FCCSET committee on information. Their perspective was why is there a need and we kept saying the need is that you have a bunch of roads but you don't have a national highway system and you really need someone to be looking at, overall, where are the resources, how should we build the next generation of

information systems, what are the differences among DOD and NASA and Commerce. We've made a few inroads but we haven't gotten a separate committee set up and we don't know if we ever will. We went to their STI Board meeting when they were having a strategy session, doing brainstorming and things like that, it was interesting because they talked about a lot of the same problems we're talking about today: information isn't seen as being important, how do you elevate its level, how do you make people realize that they need to talk to each other. Do you have anything to add to that, John? JOHN WILSON. No, just that they are going to write to Bromley also saying separate STI activity is a good idea. BARBARA LAWRENCE. I talked to Ron York a couple weeks ago, because he's now back (he left OSTP and has gone back into aerospace), and he feels OSTP won't make a move until they hear from outside development and outside the library community. He's going to help the AIAA committee rewrite that position paper on STI, but any other place, whether it's from ACM, from the end user community, you can help them create some message to OSTP which that will then get them off the fence.

BARBARA EVERIDGE. Well, that kind of brings us back full circle. Now that you've taken a look at what we had included in our strategic plan, we'll give you an opportunity again to make suggestions. Other areas that we might look at, changes to the statement, additional items for any of the action plans? JOSEPH GIGNAC. You mentioned Technology 2000 and I noticed the absence of reference to TU in the STI program goals. I'm sure there must be a reason for it, but it seems that when we have 10 industrial application centers, TU offices at each of the NASA centers, 200,000 Tech Brief subscribers, somehow we've got to get them involved in the planning process. BARBARA EVERIDGE. When we talked about Technology Utilization in our planning sessions, we included those as other activities within NASA. It used to be part of Code N but because it's not anymore, it's not particularly included in this plan. But again, we're thinking of complementary programs. We can feed them information and keep up with what they're doing. BARBARA LAWRENCE. It's like what Joe said in terms of you talking with your participants and getting involved in the R&D. It's how you position yourselves to the TU officers and the centers especially. Whether it's inviting them to your meetings, visiting some of them when you go to the centers, doing some level of activity. It may not have to be a major thing, just so that they know that the source of the information is really from you. DENISE DUNCAN. We're offering them some STI consulting, we have just interviewed someone who came in from TU in setting up the library. After speaking with them, we found that they don't want to set up a library, what they want to establish is a database of recent articles, a national network. They do have a different approach to a network of users, a more national orientation, very effective in dealing with readers' services groups. GLADYS COTTER. Did we figure out where to put the image issue? Are we going to put that on the plan? Carl pointed out that half of what we've talked about today has been on creating an image, a positive image. We need to put that someplace. BARBARA EVERIDGE. As a management strategy, I think that leadership role also belongs on the list.

BARBARA EVERIDGE. What I've done is I've made notes of the comments here and we'll work these back to the plan when we get together. BARBARA LAWRENCE. There's

effective management, there's leadership, there's image, and quality is the other one, and those wind up being the themes of the goals statements and then if you look back in the mission statement, it's hard to get those linked directly to things like global program or dealing with creation of information. A lot of these strategies have to do with the management of the program, I think, which is the issue that's facing you right in that time frame. And when you look at the tasks, the actions relate to the mission more specifically, but the phrasing of the objectives all relates to the management, I think. You've got cooperative partnerships but all the specifics under the cooperative partnerships are focused within NASA rather than towards the user community or the word global in a broad sense. The action items relate back, where the goals themselves are really internal. That's sort of a gut reaction, I don't know if that's valid. GLADYS COTTER. I see what you mean. For example, we don't have a goal to increase competitiveness, that type of thing. BARBARA LAWRENCE. Or a goal that deals with, when you talked about partnerships, the exchange of STI or the international partnerships, and you don't have anything about that, stuff that I know you've been working on that takes a lot of energy. GLADYS COTTER. That's a good point. We need to think about this in that respect and see if we should adjust some of these goals to recycle our mission statement. BARBARA LAWRENCE. I'd be inclined to take the effective management goal and the quality attitude goal and incorporate them into an introductory paragraph that says that's how we're going to go about doing everything else, and then replace those two with something on international or U.S. competitiveness, for example, which would tie very well into what NASA needs to be doing. GLADYS COTTER. That's a good idea.

Any other comments? Okay, before the next presentation we make on this, we'll go through and we're going to have another session so we'll be filling in some more of the blanks and also address this issue. And then the next session we'll have will be to present this on video to the centers. We were supposed to present this at our canceled conference, and I don't think we want to wait until April to get their feedback. I think there's a January conference and we'll present this to the centers at that meeting, get their feedback, and then try to go for something in final form. If no one has any other comments on this, what do you think we should talk about at our next meeting? What issue would we like to address next? BARBARA LAWRENCE. You and I have talked about the issue of database quality. That's a very particular thing, I don't know whether this is the time to do that. GLADYS COTTER. That's getting into the specifics. Does anyone else have any general top-level topics that you think we should discuss before we start getting into the issues like quality of the database? BARBARA EVERIDGE. What's the target date for the next meeting? GLADYS COTTER. It would be about six weeks from now. So I guess that's mid-January? If you want, we can give you some time to think about it. If anyone comes up with topics, give me a call, otherwise we may go with the quality issue. BARBARA LAWRENCE. I'd also like to know more about what Judy's doing. At that last meeting, you gave us a short presentation about the networks. You were called upon at midnight the night before to prepare something and I think it would be interesting to have a real sense of what you've learned about what's already going on in NASA and where you envision the STI program fitting into that, so that as we're creating data or helping you with programs, we kind of

know how they're going to be used in terms of electronic dissemination. JOSEPH GIGNAC. Gladys, you mentioned that the NACA collection is really getting a lot of visibility here lately and maybe that might be a pretty good topic on the top of the list. JOHN WILSON. It's probably a little too soon though because to look at the NACA file you would need the Ruth Smith study. GLADYS COTTER. We'll invite Ruth Smith to the next meeting. I think this would be an excellent meeting for her to gather initial data. You're talking about when her study would actually be going. We're trying to get Ruth Smith to come in and do a data collection for us to find out where those reports are and initially we told her the STI Facility, AIAA, Langley, and Ames. And then Ames told us Cal Tech. JOSEPH GIGNAC. Another pressing issue too I think is that the Washington National Records Center is about ready to move to permanent storage about eleven hundred cubic feet of NACA material, basically the shelf list collection. GLADYS COTTER. I thought we stopped that. JOSEPH GIGNAC. It won't be transferred until 1992. GLADYS COTTER. Okay, why don't we have the next meeting focus on the NACA collection and also have Judy give a presentation on what she's doing and maybe we can have some results reported from the LMI study at that time. DENISE DUNCAN. I'm glad to see you address the NACA reports because they were the subject of discussion frequently by the centers. There was some anxiety about the collection. We said, we will mention this in our report even though it's not online STI, we will find a way to bring this issue up.

# **STI STRATEGIC PLAN**

***Presented by***  
**BARBARA EVERIDGE, NASA**







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SCIENTIFIC AND TECHNICAL INFORMATION PROGRAM

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# SCIENTIFIC AND TECHNICAL INFORMATION DIVISION STRATEGIC GOALS

PRESENTED BY

BARBARA EVERIDGE

NOVEMBER 29, 1990





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### NASA GOALS

NASA's vision is to be at the forefront of advancements in aeronautics, space science, and exploration. To set a course into the 21st century and bring this vision to reality, NASA will pursue major goals which represent its aspirations in aviation and space. These goals are:

- (1) advance scientific knowledge of the planet Earth, the solar system, and the universe beyond;
- (2) expand human presence beyond the Earth into the solar system; and
- (3) strengthen aeronautics research and develop technology toward promoting U.S. leadership in civil and military aviation.





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### NASA GOALS, continued:

Successful pursuit of these major goals requires commitment to the following supporting goals:

- (1) return the space shuttle to flight status and develop advanced space transportation capabilities; and
- (2) develop facilities and pursue science and technology needed for the Nation's space program.

As NASA pursues these goals, it will:

- (1) promote domestic application of aerospace technologies to improve the quality of life on Earth and to extend human enterprise beyond Earth; and
- (2) conduct cooperative activities with other countries when such cooperation is consistent with national space goals.





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### STI DIVISION MISSION STATEMENT

The mission of the NASA STI program is to advance aerospace knowledge, contribute to U.S. competitiveness, and become an integral partner in NASA R&D programs to support NASA goals.

The focus of our effort will be the development of a global program to encourage the creation and exchange of STI and facilitate its use as well as to provide leadership in advancing information research and integrating state of the art technology.



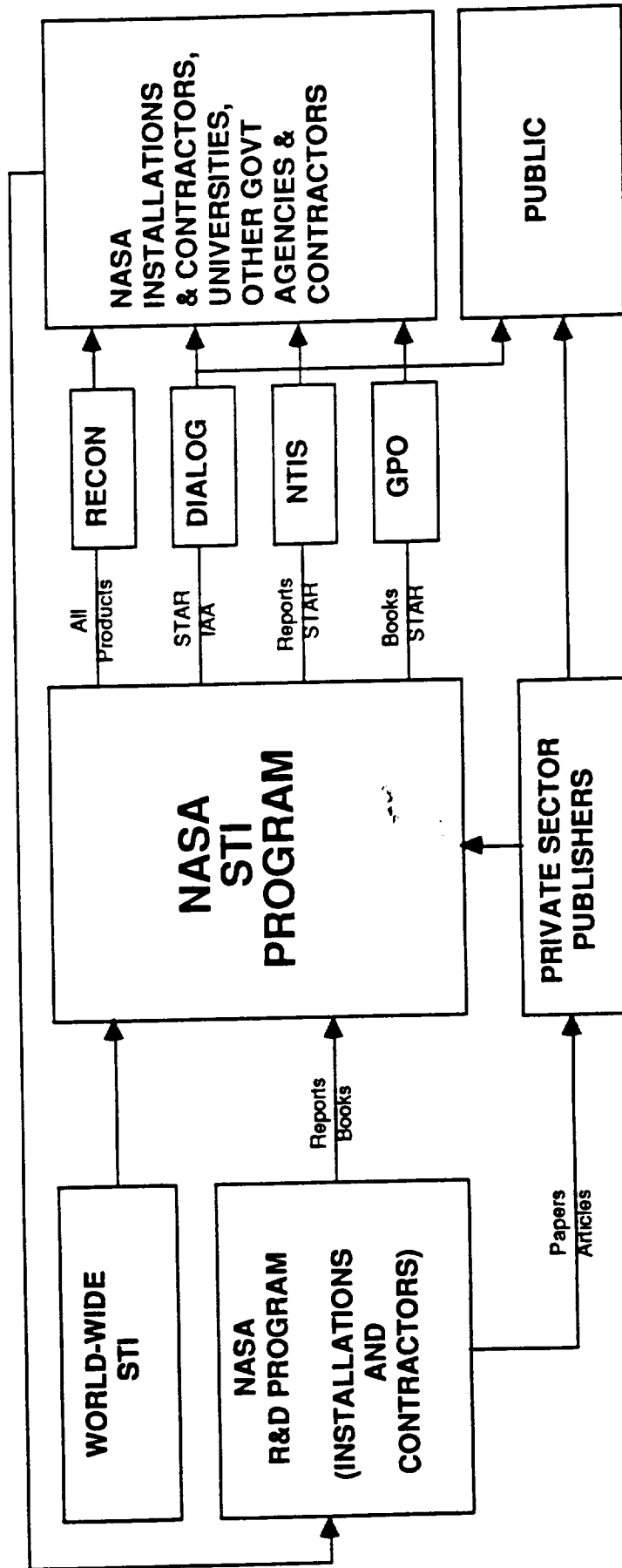




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*STI FUELS AND SUPPORTS R&D*



*R&D ACTIVITY PRODUCES STI*







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### STI DIVISION STRATEGIC GOALS:

- IMPLEMENT EFFECTIVE MANAGEMENT STRATEGIES
- ACCOMPLISH RAPID DEPLOYMENT OF THE NASA STI NETWORK
- SEEK OUT AND DEVELOP COOPERATIVE PARTNERSHIPS
- ESTABLISH THE STI PROGRAM AS AN INTEGRAL PART OF THE NASA R&D EFFORT
- ENHANCE THE QUALITY OF OUR PRODUCTS & SERVICES THROUGH A FOCUS ON THE CUSTOMER
- BUILD AN ATTITUDE OF QUALITY THROUGHOUT THE ENTERPRISE
- EXPAND THE EXISTING PARTICIPANT COMMUNITY
- ASSERT A NASA LEADERSHIP ROLE FOR STI POLICY
- DEVELOP A PROGRAM FOR INFORMATION SCIENCE R&D





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## SCIENTIFIC AND TECHNICAL INFORMATION PROGRAM

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**GOAL: IMPLEMENT EFFECTIVE MANAGEMENT STRATEGIES**

**OBJECTIVES:**

- STI program staff of 50
- STI budget of \$15 million
- Positive opinion survey results
- A plan which is the basis for activities
- Authority to implement the plan
- Restructured / renegotiated contracts

**ACTION PLAN:**

- Integrate our strategies into the STI Master Plan
- Present the plan to Management
- Establish a strategy for the restructuring of our contracts
- Identify opportunities within NASA
- Create a survey to identify personnel issues and satisfaction baseline
- Review survey results and establish a resolution action plan
- Develop a business case for selected opportunities
- Establish revised scopes of effort for each contract within the procurement cycle





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**GOAL:** ACCOMPLISH RAPID DEPLOYMENT OF THE NASA STI NETWORK

### OBJECTIVES:

- All NASA R&D linked in a global STI network
- Access of R&D community to desired STI resources
- New value-adding tools available to user community

### ACTION PLAN:

- Define user community
- Seek support under NREN
- Define the platform to support the gateway
- Gain user support of the network concept
- Define desirable STI resources
- Inventory existing value-adding tools
- Establish formal agreements with resource owners
- Evaluate usefulness of existing value-adding tools
- Develop training package for users
- Develop a marketing plan / package
- Demonstrate benefits and obtain management commitment
- Build directory of STI resources
- Select / customize / link existing value-adding tools
- Develop a charge-back method for services
- Develop / build / link new value-adding tools







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**GOAL: SEEK OUT AND DEVELOP COOPERATIVE PARTNERSHIPS**

### **OBJECTIVES:**

- Partnerships with: NASA centers, network members, suppliers, etc.
- Interagency working groups / committees
- Mutually beneficial NASA-wide STI program
- Joint strategic planning with program offices
- Stable, recurring incoming funds from participants (target: 35% of budget)
- Partners seek us out

### **ACTION PLAN — OPERATIONAL PARTNERSHIPS:**

- Define requirements of STI community
- Propose and initiate projects for program offices' participation
- Identify current STI working groups / committees
- Establish line item(s) in budget
- Establish membership with current STI groups / committees
- Establish two-way exchange of personnel / expertise between HQ and centers
- Establish an active program advisory board with high-level program office participation





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**GOAL: SEEK OUT AND DEVELOP COOPERATIVE PARTNERSHIPS**

### **ACTION PLAN — PROJECT PARTNERSHIPS:**

- Identify long-range projects which are value-added
- Match like needs of partners
- Propose program to meet requirements
- Develop marketing plan; advertise
- "Sell" program to targeted participants
- Offer enticing new products / services; free for trial; evaluate
- Facilitate transfer of funds for program
- Reward new partnerships; use to leverage new partnerships
- Execute program with quality results





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**GOAL:** ESTABLISH STI PROGRAM AS AN INTEGRAL PART OF THE NASA R&D EFFORT

**OBJECTIVES:**

- Part of R&D strategic planning
- STI line item in R&D budget
- 50% increase in staff and 15% increase in budget
- Direct association with R&D staff to distribute data

**ACTION PLAN:**

- Assess R&D STI requirements
- Regear to meet R&D STI requirements
- Increase STI staff participation in professional society meetings
- Plan participation in professional expos
- Understand how STI operations became part of R&D in other agencies
- Ensure that senior R&D managers are included in all STI meetings / agendas
- Develop plans to inform / demonstrate to user community our STI support capabilities
- Establish marketing representatives in program codes and centers





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**GOAL:    ENHANCE THE QUALITY OF OUR PRODUCTS & SERVICES THROUGH  
            A FOCUS ON THE CUSTOMER**

**OBJECTIVES:**

- Customer satisfaction feedback
- New/expanded product mix
- Effective user groups in place
- Proactive user services group

**ACTION PLAN:**

- Design and implement a user requirements profile that can be updated
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**GOAL: BUILD AN ATTITUDE OF QUALITY THROUGHOUT THE ENTERPRISE**

### **OBJECTIVES:**

- Improved information flow resulting in better program understanding
- Confidence of others in our work/products/services
- Timely handling of all requests for services
- High level of employee / contractor satisfaction
- Active awards system

### **ACTION PLAN:**

- Analyze hot-line input / incoming calls
- Analyze results of user surveys
- Incorporate quality questions into other surveys
- Establish interactive quality program
- Develop awards program for STI employees, NASA-wide authors and contractors
- Sponsor / invite external presentations in STI-related areas
- Have monthly / quarterly meetings on specific subjects
- Provide for recognition of contractor individuals who do well or "perform steadily"
- Develop suspense system for user contact responses
- Hold monthly staff meetings (Knowledge = Quality)





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**GOAL: EXPAND THE EXISTING PARTICIPANT COMMUNITY**

**OBJECTIVES:**

- Increased R&D management participation in STI activities
- 10% per year increase in number of new users
- Increased number of delivered "information units"
- Reimbursements at 35% of total STI budget
- Competition among centers to host STI meetings

**ACTION PLAN:**

- Develop a comprehensive marketing program
- Develop plan and submit proposal for co-located STI representatives
- Ensure that STIF commo person develops POC's for all commo segments
- Ensure that the STI Bulletin is used as a marketing tool
- Identify user community by organization category, product usage, service usage
- Analyze LMI study results to understand user product / services requirements
- Install an electronic bulletin board
- Ensure that STI is included in NASA publications and congressional testimony
- Develop a comprehensive training strategy
- Plan / schedule periodic user conferences





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**GOAL:     ASSERT A NASA LEADERSHIP ROLE FOR STI POLICY**

**OBJECTIVES:**

- NASA STI representatives on national and international planning and standards groups
- NASA STI invited to give papers at policy groups
- NASA representatives on cabinet-level STI policy groups
- NASA a recognized leader in STI

**ACTION PLAN:**

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**GOAL: DEVELOP A PROGRAM FOR INFORMATION SCIENCE R&D**

**OBJECTIVES:**

- One RTOP per year for NTT
- NTT papers published in Journals on Information R&D
- Patents awarded on new products / Ideas
- R&D applications staff 50% of division staff
- R&D applications budget 50% of division budget
- Internships for university students
- STI R&D Center

**ACTION PLAN:**

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